

## ABSTRACT

The gene for human occludin, an integral transmembrane protein specifically associated with tight junctions that functions in forming intercellular seals, is cloned, characterized, and sequenced, and the polypeptide sequence, determined. Drug delivery is enhanced by administering an effective amount of occludin inhibitors.

- 5 These include peptides or antibodies that interact with occludin or occludin receptors. Also included are occludin antagonists, occludin receptor components, and mixtures thereof. In some embodiments, analogues of occludin surface loops that inhibit adhesion are employed. Administration can be local or systemic; local administration in a pharmaceutically acceptable carrier is preferred in some embodiments.